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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/570,057

12/04/2006

Bernt-Ake Sultan

15691.0001USWO

1873

23552 7590 04/27/2010  
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EXAMINER

CHOI, LING SIU

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/27/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/570,057	<b>Applicant(s)</b> SULTAN ET AL.	
	<b>Examiner</b> Ling-Siu Choi	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-11 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11 and 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/08/2010</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The request filed on 04/08/2010 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No.10/570,057 is acceptable and a RCE has been established. An action on the RCE follows.

2. The Office Action is based on the claims amended on 02/05/2010 by the Examiner Amendment. Claims 4 and 12-16 were cancelled and claims 1-3, 5-11, and 17-23 are now pending.

### *Claim Analysis*

3. Summary of Claim 1:

A <u>pipe</u> made of a crosslinkable polyethylene composition containing	
	a crosslinkable high-pressure ethylene silane copolymer resin having a content of silane of about 0.1 to 10 wt% and
	less than 40 wt% high density polyethylene, and
	at least one silanol condensation catalyst
wherein <u>the ethylene silane copolymer resin has a density of &gt; 925 kg/m<sup>3</sup>.</u>	

Summary of Claim 17:

A <u>pipe</u> made of a crosslinkable polyethylene composition comprising	
	an ethylene-vinyltrimethoxysilane copolymer resin having a content of silane of about 0.1 to 10 wt% and
	less than 40 wt% high density polyethylene, and

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	at least one silanol condensation catalyst
wherein <u>the ethylene silane copolymer resin has a density of <math>&gt; 925 \text{ kg/m}^3</math></u> ;	

Summary of Claim 22:

A <u>pipe</u> made of a crosslinkable polyethylene composition, the composition comprising:	
	a crosslinkable high-pressure ethylene silane copolymer resin having a content of silane of about 0.1 to 10 wt-%;
	at least one silanol condensation catalyst; and
	20-30 wt-% high density polyethylene;
wherein <u>the ethylene silane copolymer resin has a density of <math>&gt;925 \text{ kg/m}^3</math></u> ; and the pipe has pressure resistance at 95 °C of at least 4.4 MPa and a failure time of at least 1000 hours.	

Summary of Claim 23:

A <u>pipe</u> made of a crosslinkable polyethylene composition, the composition comprising:	
	a crosslinkable high-pressure ethylene silane copolymer resin having a content of silane of about 0.1 to 10 wt-%;
	at least one silanol condensation catalyst; and
	< 40 wt-% high density polyethylene;
wherein <u>the ethylene silane copolymer resin has a density of <math>&gt;925 \text{ kg/m}^3</math></u> ; and the pipe has pressure resistance at 95 °C of at least 4.4 MPa and a failure time of at least 1000 hours.	

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5-11, and 17-23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lorigan et al. (EP 0 365 289 A2).

Lorigan et al. disclose a filled water-crosslinkable silane copolymer composition comprising (A) a silane copolymer having a silane content of from 2 to 50 wt%, (B) a second polymer prepared from at least one olefin monomer selected from the group consisting of ethylene, propylene, butene, isobutylene, octene, 4-methyl-pentene-1 and hexene, (C) at least one filler in an amount of from 5 to 75 wt% of the total weight of the composition, and (D) **an organometallic silanol condensation catalyst**, wherein the second polymer is selected from the group consisting of low density polyethylene, **high density polyethylene**, linear low density polyethylene, very low density polyethylene, polypropylene, ethylene-propylene-diene monomer rubber (EPDM) ethylene-propylene copolymer, ethylene-propylene rubber (EPR), ethylene-ethylacrylate copolymer, ethylene-methyl acryate copolymer,

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ethylene-vinyl acetate copolymer and polybutene-1 and the silane copolymer is **ethylene-vinyl trimethoxy silane** (claims 1, 5, and 6). Lorigan et al. further disclose that the amount of the **second polymer** is in the range from **5 to 50 wt%** of the total composition, within which the amount is adjusted to achieve the **silane content** of the composition in the range of **0.5 to 25 wt%** (page 4, lines 41-44). Lorigan et al. furthermore disclose that the composition can be processed into a **pipe** (page 2, line 5). It is noted that Lorigan et al. are silent on the density of the ethylene silane copolymer used to prepare the pipe. In view of the pipe made by components which are substantially identical to the ones used to prepare the claimed pipe, the ethylene silane copolymer would possess the claimed density. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. **In re Best**, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); **In re Fitzgerald**, 205 USPQ 594 (CCPA 1980).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/

Primary Examiner, Art Unit 1796

April 25, 2010

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